

Electronic Supplementary Information

Sample	Amount of IL [mol]	Amount of Diluent [mol]	Amount of IL + Diluent [mol]	Mass of IL + Diluent [g]	Density of IL + Diluent [g.cm3]	Volume of IL + Diluent [L]	Amount of LiNTf2 [mol]	Diluent : Li ⁺ Ratio
10 mol%:								
VC	0.9	0.1	1	376.15	1.45	0.26	0.17	0.59
EC	0.9	0.1	1	376.35	1.45	0.26	0.17	0.59
THF	0.9	0.1	1	374.75	1.44	0.26	0.17	0.59
Toluene	0.9	0.1	1	376.76	1.44	0.26	0.17	0.59
20 mol%:								
VC	0.8	0.2	1	343.91	1.44	0.23	0.15	1.32
EC	0.8	0.2	1	344.32	1.44	0.23	0.15	1.32
THF	0.8	0.2	1	341.13	1.43	0.24	0.15	1.31
Toluene	0.8	0.2	1	345.13	1.42	0.24	0.16	1.28

These calculations are based on the assumption that the density of the IL with diluent follows a linear law of mixtures.